SAMSUNG

SERIES 4 5
4003
5003

LED TV
user manual

Figures and illustrations in this User Manual are provided for reference only and may differ from actual product appearance. Product design and specifications may be changed without notice.

Important Warranty Information Regarding Television Format Viewing

✎ See the warranty card for more information on warranty terms.

Wide screen format LED Displays (16:9, the aspect ratio of the screen width to height) are primarily designed to view wide screen format full-motion video. The images displayed on them should primarily be in the wide screen 16:9 ratio format, or expanded to fill the screen if your model offers this feature and the images are constantly moving. Displaying stationary graphics and images on screen, such as the dark sidebars on non- expanded standard format television video and programming, should be limited to no more than 5% of the total television viewing per week. Additionally, viewing other stationary images and text such as stock market reports, video game displays, station logos, web sites or computer graphics and patterns, should be limited as described above for all televisions. Displaying stationary images that exceed the above guidelines can cause uneven aging of LED Displays that leave subtle, but permanent burned-in ghost images in the LED picture. To avoid this, vary the programming and images, and primarily display full screen moving images, not stationary patterns or dark bars. On LED models that offer picture sizing features, use these controls to view different formats as a full screen picture. Be careful in the selection and duration of television formats you use for viewing. Uneven LED aging as a result of format selection and use, as well as burned-in images, are not covered by your Samsung limited warranty.

- SAMSUNG ELECTRONICS NORTH AMERICAN LIMITED WARRANTY STATEMENT

Subject to the requirements, conditions, exclusions and limitations of the original Limited Warranty supplied with Samsung Electronics (SAMSUNG) products, and the requirements, conditions, exclusions and limitations contained herein, SAMSUNG will additionally provide Warranty Repair Service in the United States on SAMSUNG products purchased in Canada, and in Canada on SAMSUNG products purchased in the United States, for the warranty period originally specified, and to the Original Purchaser only.

The above described warranty repairs must be performed by a SAMSUNG Authorized Service Center. Along with this Statement, the Original Limited Warranty Statement and a dated Bill of Sale as Proof of Purchase must be presented to the Service Center. Transportation to and from the Service Center is the responsibility of the purchaser.

Conditions covered are limited only to manufacturing defects in material or workmanship, and only those encountered in normal use of the product. Excluded, but not limited to, are any originally specified provisions for, in-home or on-site services, minimum or maximum repair times, exchanges or replacements, accessories, options, upgrades, or consumables.

For the location of a SAMSUNG Authorized Service Center, please call toll-free:

— In the United States : 1-800-SAMSUNG (1-800-726-7864)
— In Canada : 1-800-SAMSUNG

Still image warning

Avoid displaying still images (such as jpeg picture files) or still image elements (such as TV channel logos, TV shows or movies in panorama or 4:3 format, stock or news scroll bars, etc.) on the screen. The constant display of still pictures can cause ghosting or image burn-in (image retention) on the LED screen, which will affect image quality. To reduce the risk of this effect, please follow the recommendations below:

- Avoid displaying the same TV channel for long periods.
- Always try to display any image in full screen mode. Use the TV's Picture Options menu to select the optimal screen size.
- Reduce brightness and contrast values to the minimum required to achieve the desired picture quality. Values that exceed the minimum may speed up the burn-in process.
- Frequently use all TV features designed to reduce image retention and screen burn-in. Refer to proper user manual section for details.

Contact SAMSUNG WORLDWIDE

If you have any questions or comments relating to Samsung products, please contact the SAMSUNG customer care center.

Country	CANADA	U.S.A.
Address	Samsung Electronics Canada Inc., Customer Service 55 Standish Court Mississauga, Ontario L5R 4B2 Canada	Samsung Electronics America, Inc. 85 Challenger Road Ridgefield Park, NJ 07660-2112
Customer Care Center ☎	1-800-SAMSUNG(726-7864)	
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The On Screen Menus

Your TV has two kinds of menus, the Main menu and the various Tools menus. The Main menu gives you access to most or all of the menu options available on your TV. The Tools menus display a selected number of frequently used menu options that change depending on the screen you are viewing. A Tools menu symbol (TOOLS) in the lower right side of the screen indicates that a Tools menu is available.

The Main menu has seven primary categories:

- Picture
- Sound
- Channel
- Setup
- Input
- Application
- Support

To view the Main menu, press the MENU button on your remote. To view a Tools menu, press the TOOLS button on your remote.

✎ The menu options that appear in the Main menu depend on the Source you have selected. For example, if you have selected the HDMI source, the Channel category will not appear. To see the Channel category, you must first select TV in the Source List.

The Menu options are presented below, arranged by Main menu categories. A Tools button symbol (TOOLS) next to an option name indicates the option is also available in one of the Tools menus.

Picture Menu

Mode TOOLS

Select your preferred picture mode.

✎ When your TV is connected to a PC, you can only select **Entertain** and **Standard**.

- **Dynamic**: Brightens the screen. Suitable for a bright room.
- **Standard**: Suitable for a normal normal.
- **Movie**: Darkens the screen, making it less glary. Suitable for watching movies in a darkened room.
- **Entertain**: Sharpens the picture. Suitable for games.
  - ✎ Only available when the **TV** is connected to a **PC**.

Backlight / Contrast / Brightness / Sharpness / Color / Tint (G/R)

- **Backlight**: Adjusts the brightness of the screen by adjusting the brightness of the individual pixels.
- **Contrast**: Increases or decreases the contrast between dark and light areas of the picture.
- **Brightness**: Adjusts the brightness of the screen. Not as effective as Backlight.
- **Sharpness**: Sharpens or dulls the edges of objects.
- **Color**: Adjusts the color saturation. The higher the Color setting, the more intense the color. Low settings remove color and the picture becomes black, white and gray.
- **Tint**: Adjusts the amount of green and red in the picture. As you increase the amount of green, the amount of red decreases and vice versa.

✎ When the TV is connected to a PC, you can only make changes to **Backlight, Contrast, Brightness,** and **Sharpness.**

Advanced Settings

Available in **Standard** and **Movie** mode only.

Compared to previous models, new Samsung TVs offer a more precise picture with more precise controls.

✎ When your TV is connected to a PC, you can only make changes to **Gamma** and **White Balance**.

- **Color Space (Auto / Native)**: Auto automatically matches the range of colors available to create pictures to the color range of the video source. Native provides a color range wider than the color range of the video source.
- **White Balance**: Adjusts the color temperature of the picture so that white objects look white (instead of, for example, slightly pink or slightly yellow) and the overall color of the picture looks natural.

  R-Offset / G-Offset / B-Offset: Adjusts each color's (red, green, blue) darkness.

  R-Gain / G-Gain / B-Gain: Adjusts each color's (red, green, blue) brightness.

  Reset: Resets the **White Balance** to it's default settings.
- **Gamma**: Adjusts the primary color intensity.
- **Dynamic Contrast (Off / Low / Medium / High)**: Adjusts the screen contrast.
- **Black Tone (Off / Dark / Darker / Darkest)**: Selects the black level to adjust the screen depth. Darker settings make blacks look darker.
- **Flesh Tone**: Adjusts the amount of red in skin tones.
- **Motion Lighting (Off / On)**: When on, the TV automatically adjusts the brightness of the screen in response to the brightness of the room. In bright light, the screen brightens. In dim light, the screen dims.
  - ✎ Available in **Standard** mode only.

Picture Options

✎ When the TV is connected to a PC, you can only make changes to the **Color Tone**, **Size** and **HDMI Black Level**.

- **Color Tone (Cool / Standard / Warm1 / Warm2)**: Cool makes the picture bluer (cooler). Warm 1 and Warm 2 make the picture redder (warmer).
  - ✎ **Warm1** and **Warm2** are deactivated when the picture mode is set to **Dynamic**.
- **Size**: Set the size and aspect ratio of the picture on the screen. Your cable box or satellite receiver may have its own set of screen sizes as well. However, we highly recommend you use the TVs 16:9 mode most of the time.

  16:9: Sets the picture to the 16:9 wide screen format.

  Zoom1: Provides moderate magnification of the picture. Sides, top, and bottom are cut off.

  Zoom2: Provides larger magnification of the picture. Sides, top, and bottom are cut off.

  Wide Fit: Enlarges the aspect ratio of the picture so the picture fits the entire screen.

  4:3: Sets the picture to the old, 4:3 format and puts black or gray borders on the right and left of the picture.

  ✎ Do not watch your TV in the 4:3 format for a long time. Traces of borders displayed on the left, right and center of the screen may cause image retention (screen burn) which is not covered by the warranty.

Screen Fit: Displays the full image without any cut-off when your TV is inputting HDMI (720p / 1080i / 1080p) or Component (1080i / 1080p) HD signals.

✎ HD (High Definition) has a 16:9 aspect ratio and 1080i/1080p (1920x1080) or 720p (1280x720) resolution.

✎ You can adjust and store settings for each external device you have connected to an input on the TV. Picture Sizes available by Input Source are listed below:

Input Source	Picture Size
ATV, AV, Component (480i, 480p)	**16:9**, **Zoom1**, **Zoom2**, **4:3**
DTV (1080i, 1080p), Component (1080i, 1080p), HDMI (720p, 1080i, 1080p)	**16:9**, **Wide Fit**, **4:3**, **Screen Fit**

- **Digital Noise Filter (Off / Low / Medium / High / Auto)** : If the broadcast signal received by your TV is weak, you can activate the **Digital Noise Filter** feature to reduce any static and ghosting that may appear on the screen.
  - ✎ When the signal is weak, try all the Digital Noise Filter options until the TV displays the best picture.
- **HDMI Black Level (Normal / Low)** : For HDMI signals, select the black level to adjust the screen depth. Low make blacks look darker.
  - ✎ Available only in **HDMI** mode (RGB signals).
- **Film Mode (Off / Auto)** : Sets the TV to automatically sense and process film signals from all sources and adjusts the picture for optimum quality.
  - ✎ Available in ATV, DTV (interlace), AV, COMPONENT (480i / 1080i) and HDMI (480i / 1080i).
- **LED Motion Plus (Off / On)**: Removes drag from fast scenes with a lot of movement to provide a clear picture.

Picture Reset

- **Picture Reset (Reset Picture Mode/Cancel)**: Resets the picture settings to their factory defaults.

Sound Menu

Mode TOOLS

- **Standard**: Selects the normal sound mode.
- **Music**: Emphasizes music over voices.
- **Movie**: Provides the best sound for movies.
- **Clear Voice**: Emphasizes voices over other sounds.
- **Amplify**: Increase the intensity of high-frequency sounds to allow a better listening experience for the hearing impaired.

Equalizer

Available in Standard sound mode only.

- **Balance L/R**: Adjusts the balance between the right and left speaker.
- **100Hz / 300Hz / 1KHz / 3KHz / 10KHz** (Bandwidth Adjustment): Adjusts the loudness of specific bandwidth frequencies.
- **Reset**: Resets the equalizer to its default settings.

SRS TruSurround HD

Available in Standard sound mode only.

SRS TruSurround HD is a patented SRS technology that solves the problem of playing 5.1 multichannel content through two speakers. TruSurround delivers a compelling, virtual surround sound experience through any two-speaker playback system, including internal television speakers. It is fully compatible with all multichannel formats.

Preferred Language

Digital channels only.

Digital-TV broadcasts can transmit many audio tracks simultaneously (for example, simultaneous translations of a program into foreign languages).

✎ You can only select a language from among the ones being broadcast.

Multi-Track Sound (MTS)

Analog channels only.

- **Mono**: Select for channels that are broadcasting in mono or if you are having difficulty receiving a stereo signal.
- **Stereo**: Select for channels that are broadcasting in stereo.
- **SAP**: Select to listen to the Separate Audio Program, which is usually a foreign-language translation.

✎ Depending on the program being broadcast, you can listen to **Mono, Stereo** or **SAP**.

Auto Volume

Because each station has its own broadcasting conditions, the volume may fluctuate each time you change the channel. This feature automatically adjusts the volume of a channel by lowering the sound output when the modulation signal is high or by raising the sound output when the modulation signal is low.

Sound Reset

- **Reset All**: Resets all sound settings to the factory defaults.

Channel Menu

❑ Memorizing Channels

When you first set up your TV using **Plug & Play**, the TV memorized the channels that were available over the air or through your cable system and added them to the **Channel List**. The **Antenna** and **Auto program** functions described below let you re-run the channel memorization function without having to re-run the **Plug & Play** procedure.

Antenna (Air / Cable) TOOLS

Before your television can memorize the available channels, you must select your TV's signal source, **Air** (using an antenna) or **Cable**. Select Menu >**Channel** > **Antenna** > **Air** or **Cable**. After you have selected the signal source, go on to the Auto Program function.

✎ Selecting the signal source using the **Antenna** function also determines the signal source the TV is tuned to. For example, if you receive your TV signal over the air, and you select **Cable**, you will see only snow. You must select Air to see a picture.

Auto Program

The **Auto Program** function memorizes all channels that are available over the air or through your cable system and adds them to the **Channel List**.

To start **Auto Program**, follow these steps:

1. Push MENU ▥ → **Channel** → **Auto Program** → ENTER⏎ on your remote. The Antenna Source screen appears.
2. On the Antenna Source screen, select the source of your TV signal.

Air

If your TV is connected to an antenna choose **Air**, and then press ENTER⏎. The TV will automatically start memorizing channels.

Cable

If your TV is connected to a cable outlet, choose Cable, and then press ENTER⏎. Go to Step 3.

Auto

If you choose **Auto**, and then press ENTER⏎, the TV will automatically select the correct Antenna source. Go to Step 3.

3. On the Cable Type screen, use the ◄/►/▲/▼ buttons to select the type of digital and analog cable systems you have: **STD**, **HRC**, or **IRC.** Most systems are **STD** (Standard). When done, select **Start**, and then press ENTER⏎. The TV will start memorizing channels.
   - ✎ Channel memorization can take up to 45 minutes, depending on your cable system.
   - ✎ Memorized channels are added to the **Added Channels** list. These are the channels you will see when you use the Channel buttons on your remote.

Clear Scrambled Channel

This function filters out scrambled channels after **Auto Program** is completed. This process may take up to 20~30 minutes.

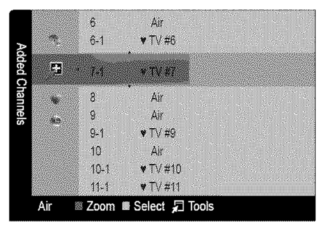
✎ Press the ENTER⏎ button to stop the **Clear Scrambled Channel**.

✎ This function is only available in **Cable** mode.

❑ Managing Channels

Channel List

See your list of Added channels, Favorite channels, or channels you've scheduled for viewing. Add or delete Favorite channels, add or delete channels from the Added Channels list, schedule channels or programs for viewing. Watch a channel by selecting the channel in the **All Channels, Added Channels**, or **Favorite** screen, pressing the ▲ / ▼ buttons, and then pressing the ENTER⏎ button.



Channel List Screens icons are listed on the left side. Select an icon using the ▲/▼ buttons to view each list.

- **All Channels**: Shows all currently available channels including those you deleted from the **Added Channels** list.
- **Added Channels**: Shows all **Added Channels**. These are the channels that appear when you press the CH button.
- ♥ **Favorite**: Shows all favorite channels.
- **Programmed**: Shows all channels and programs currently scheduled using **Timer Viewing**.

✎ Remote control buttons active on the **Channel List** screen.

- Green (**Zoom**): Enlarges or shrinks a channel number.
- Yellow (**Select**): Move the cursor to a channel. Press the Yellow button to select the channel. A ✓ mark appears. Repeat to select additional channels. Then, open the Tools menu and apply a function to the channels you selected.
- (**Tools**): Displays the Channel List Tools menu. (The Tools menus may differ depending on the situation.)

Display Icons Used in the Channel List Screens

Icons	Meaning
✓	A selected channel.
♥	A Favorite channel.
⏲	A reserved program.
📺	A program currently being broadcast.

❑ The Channel List Tools Menu TOOLS

The Channel List Tools menu contains most of the functions you can use on the **All Channel**, **Added Channels**, and **Favorite** List screens. To view, select a list screen, select a channel, and then press the TOOLS button.

- **Add / Delete**: Delete a channel from or add a channel to the **Added Channels** list.

To delete channels from the **Added Channels** list, follow these steps:

1. Select one or more channels in the **Added Channels** list using the ▲/▼ buttons and the Yellow (**Select**) button on your remote.
2. Press the TOOLS button on your remote. The Tools menu appears.
3. Select **Delete** in the Tools menu, and then press the ENTER⏎ button.

To add channels to the **Added Channels** list, follow these steps:

1. Select one or more channels in the **All Channels** list using the ▲/▼ buttons and the Yellow (**Select**) button on your remote.
2. Press the TOOLS button on your remote. The Tools menu appears.
3. Select **Add** in the Tools menu, and then press the ENTER⏎ button.
   - ✎ All deleted channels will be shown on the **All Channels** list. You add channels back to the **Added Channels** list on the **All Channels** list.
   - ✎ A gray-colored channel indicates the channel has been deleted from the **Added Channels** list.
   - ✎ The **Add** menu option only appears for deleted channels.

- **Add to Favorite/Delete from Favorite**: Lets you add channels to and delete channels from your **Favorites** list.

To add channels to the **Favorites** list, follow these steps:

1. Select one or more channels in the **All Channels/Added Channels** list using the ▲/▼ buttons and the Yellow (**Select**) button on your remote.
2. Press the TOOLS button on your remote. The Tools menu appears.
3. Select **Add to Favorite** in the Tools menu, and then press the ENTER⏎ button.

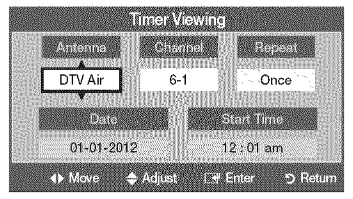
To delete channels from the **Favorites** list, follow these steps:

1. Select one or more channels in the **Favorite** Channels list using the ▲/▼ buttons and the Yellow (**Select**) button on your remote.
2. Press the TOOLS button on your remote. The Tools menu appears.
3. Select **Delete from Favorite** in the Tools menu, and then press the ENTER⏎ button.

- **Timer Viewing**: You can schedule a channel to be displayed automatically at a set time, even when you are watching another channel. You must set the current time first in the **Setup** > **Time** > **Clock** function to use **Time Viewing**.

To schedule a channel, follow these steps:

1. Select a channel in the **Added Channels** list using the ▲/▼ buttons and the Yellow (**Select**) button on your remote.
2. Press the TOOLS button on your remote. The Tools menu appears.
3. Select **Time Viewing** in the Tools menu, and then press the ENTER⏎ button. The Time Viewing screen appears.



4. Use the ◄/► buttons to move from entry field to entry field and the ▲/▼ buttons to change the entries. Where numbers are displayed, you can also enter numbers directly using the number keypad on your remote.
   - ✎ If you select **Everyday** or **Every Week**, the date you select in the Date field becomes the start date for your scheduled viewing. For **Everyday**, the TV will turn on every day, at the time you selected, starting from that date. For **Everyweek**, the TV will turn on every week, on the same day of the week as the start date you selected, at the time you selected, from that day on. If you select **Once**, the TV will turn on once, on the date and time you selected.
5. Press the ENTER⏎ button on your remote when done.

✎ Only **Added Channels** can be scheduled.

✎ Scheduled programs and channels are displayed in the **Programmed** List.

✎ When you select a digital channel, press the ► button to view the digital program list. If you highlight a program in the list, and then press the ENTER⏎(**Schedule**) button, you set **Timer Viewing** for that program directly.

- **Select All**: Select all the channels in the displayed channel list.
- **Deselect All**: Deselect all the selected displayed channels.
  - ✎ You can only select **Deselect All** when one or more channels are selected.
- **Channel Name Edit**: Analog channels only. Lets you assign a name of up to five characters to an analog channel. For example, Hist, Food, Golf, etc. This makes it easier to find and select a channel .
- **Auto Program**: See **Auto Program** under Memorizing Channels.

Programmed List (on the Channel List Screen)

The **Programmed** list displays the channels and programs you have scheduled for viewing using the **Time Viewing** function. You can view, modify, or delete a show you have scheduled using the functions on the **Programmed** List screen Tools menu.

Programmed List Screen Tools Menu TOOLS

- **Change Info**: Change the scheduling information for a show or channel you have scheduled.

To change the information, follow these steps:

1. Select the **Programmed** List icon on the left side of the **Channel List** screen, and then press the ENTER⏎ button.
2. On the **Programmed** List screen, select the show or channel entry you want to change, and then press the TOOLS button. The Tools Menu appears.
3. Select **Change Info**, and then press the ENTER⏎ button. The **Time Viewing** screen appears.
4. Use the ◄/► buttons to move from entry field to entry field and the ▲/▼ buttons to change the entries. Where numbers are displayed, you can also enter numbers directly using the number keypad on your remote.
5. Press the ENTER⏎ button when done.

- **Cancel Schedules**: Cancel a show or channel you have scheduled.

To cancel a scheduled show or channel, follow these steps:

1. Select the **Programmed** List icon on the left side of the **Channel List** screen, and then press the ENTER⏎ button.
2. On the **Programmed** List screen, select the show or channel entry you want to cancel, and then press the TOOLS button. The Tools Menu appears.
3. Select **Cancel Schedules**, and then press the ENTER⏎ button. The **Cancel Schedule** screen appears.
4. Select **OK**, and then press the ENTER⏎ button.

- **Information**: Display the information for a show or channel you have scheduled. You can also change the schedule Information.

1. Select the **Programmed** List icon on the left side of the **Channel List** screen, and then press the ENTER⏎ button.
2. On the **Programmed** List screen, select the show or channel entry you want information for, and then press the TOOLS button. The Tools Menu appears.
3. Select **Information**, and then press the ENTER⏎ button. The **Time Viewing** Information screen appears.
4. Select **Change Info** and press the ENTER⏎ button to change information, or select **Close** and press the ENTER⏎ button to close the Information screen.

- **Select All / Deselect All**: You can select or deselect all channels in the channel list.

❑ Other Channel Menu Functions

Channel Mode (Added Channels / Favorite Channels)

Lets you select the channel list displayed when you press the ⋀CH⋁ (Channel) button on your remote. For example, if you select Favorite Channels, you will only see Favorite channels when you press the ⋀CH⋁ button.

Fine Tune

Analog channels only.

If the reception is clear, you do not have to fine tune the channel, as this is done automatically during the search and store operation. If the signal is weak or distorted, fine tune the channel manually.

✎ Select the channel, and then select **Fine Tune**.

✎ Fine tuned channels that have been saved are marked with an asterisk "*" on the right-hand side of the channel number in the channel banner.

✎ To reset fine-tuning, select the channel, select **Fine Tune**, and then select **Reset** on the **Fine Tune** screen.

Setup Menu

Plug & Play

Lets you re-run the **Plug & Play** initial setup procedure. For instructions, see your Quick Start Guide.

Language

Set the menu language.

✎ Choose between **English**, **Español,** and **Français**.

❑ Setting the Time

Time

✎ The time you set will appear when you press the INFO button.

- **Clock**: Set the clock so you can use the various timer features of the TV.
  - ✎ If you disconnect the power cord, you have to set the clock again.

To set the clock, follow these steps:

1. Select **Setup** >**Time** > **Clock**.
2. Press ENTER⏎ and select **Auto** or **Manual**, and then press ENTER⏎ again.

If you selected Auto:

The TV will automatically download the correct time from a digital channel.

- Select **Time Zone**, and then press the ENTER⏎ button. Use the▲/▼ buttons to select your Time Zone, and then press ENTER⏎.
- Select DST (Daylight Savings Time), and then press ENTER⏎. Select **On** if you want to turn the DST adjustment on and off manually. Select **Off** to turn off the DST adjustment. Select **Auto** if you want the TV to adjust to DST automatically. Press ENTER⏎ when done.

✎ **DST** and **Time Zone** function are only available when the **Clock Mode** is set to **Auto**.

If you selected Manual:

The **Clock Set** screen appears. Use the ▲/▼ buttons to change the values in each field or use the number buttons to enter the values directly. Use the ◄/► buttons to move from field to field. When done with all the fields, press ENTER⏎.

✎ Available only when **Clock Mode** is set to **Manual**.

- **Sleep Timer** TOOLS

  Automatically shuts off the TV after a preset period of time. (30, 60, 90, 120, 150 and 180 minutes).

  ✎ To cancel the **Sleep Timer**, select **Off**.

Timer 1 / Timer 2 / Timer 3

Turns the TV on and off automatically at times and days you select. You can set three different on/off timer settings.

✎ You must set the clock first.

- **On Time / Off Time**: Set the hour, minute, am/pm, and Activate/Inactivate fields for the **On Time** and **Off Time**. Use the ◄/► buttons to move from field to field. Use the ▲/▼ buttons to change the values in each field. To activate the timer with the setting you have chosen, set the Activate/Inactivate field to **Activate**.
- **Volume**: Set the desired loudness.
- **Contents**: To select what will be turned on when the timer setting is activated. You can set the TV to turn on a specific channel or play back contents such as photo or audio files.

  Use the ◄/► buttons to move to move to the Contents field, and then press the ENTER⏎ button. The Contents screen appears. Use the ◄/► buttons to move from field to field. Use the ▲/▼ buttons to change the values in each field.

  - **TV/USB**: Select **TV** or **USB**. The USB device must be connected to your TV before you can select USB.
  - **Antenna**: Displays the current antenna source, **Air** or **Cable**.
  - **Channel**: If you have selected TV, select the desired channel.
  - **Music/Photo**: If you have selected USB, follow these steps to select a folder containing MP3 (Music) or JPEG (Photo) files on the USB device:

  ✎ The maximum displayed number of files, including sub folders, in one folder of USB storage device is 2000.

  ✎ The media may not be playing smoothly when using the device lower than USB 2.0.

  1. Use the ◄/► buttons to move to the field under **Music** or the field under **Photo**, and then press the ENTER⏎ button. The TV displays a single folder (the Root folder) and the type or name of the device.
  2. Press the ENTER⏎ button. A list of folders on the device appears.
     - ✎ If there are no folders on your device, press the Yellow (**Select**) button to select the Root folder, and then press the RETURN button. The Timer screen re-appears.
  3. Use the ▲/▼ buttons to highlight a folder that contains music or photos, and then press the Yellow (**Select**) button to select the folder.
  4. Press the RETURN button. The Timer screen re-appears.
- **Repeat**: Select **Once**, **Everyday**, **Mon~Fri**, **Mon~Sat**, **Sat~Sun** or **Manual**. If you select **Manual**, you can select the days you want to activate the timer by using the ◄/► buttons to highlight the day, and then pressing the ENTER⏎ button. To unselect a day, highlight it, and then press the ENTER⏎ button.

When you finished making all your selections on the Timer screen, press either the ENTER⏎ or RETURN button.

❑ Other Features

Program Rating Lock

The **Program Rating Lock** feature lets you block programs you've determined are inappropriate for your children based on the program's ratings. To access the **Program Rating Lock** feature and make any changes, you must enter a PIN (personal identification number). To watch a blocked program, you must also enter the same PIN.

✎ **Program Rating Lock** is not available in **HDMI** or **Component** mode.

✎ The default PIN number of a new TV set is "0-0-0-0". You can set your own PIN using the **Change PIN** function.

How It Works

When you access the **Program Rating Lock** Menu functions for the first time, the PIN input screen appears. Enter 0-0-0-0. The PIN screen closes and the **Program Rating Lock** Menu appears. Every time you access the **Program Rating Lock** functions, the PIN screen will appear and you must enter a PIN.

When the Rating Lock screen appears, select **Program Rating Lock**, and then press ENTER⏎. Select **On**, and then press the ENTER⏎ key again. Depending on what type of programs or movies you want to block, select one of the options on the screen, and then press the ENTER⏎ button. The options are listed below:

- **TV Parental Guidelines**: You can block TV programs based on their ratings. This function allows you to control what your children are watching.
- **MPAA Rating**: You can block movies based on their MPAA ratings. The Motion Picture Association of America (MPAA) has implemented a rating system that provides parents or guardians with advanced information on which films are appropriate for children.
- **Canadian English**: You can block TV programs based on their Anglophone Canadian ratings.
- **Canadian French**: You can block TV programs based on their French Canadian ratings.
- **Downloadable U.S. Rating**: Parental restriction information can be used while watching DTV channels.

Locking/Blocking Programs or Movies

You lock or block programs and/or movies in essentially the same way for each option. Each option displays a grid or table. All the tables have ratings listed on the left. The TV Parental Guidelines option also has kinds of content listed across the top: **ALL**: Lock all TV ratings. / **FV**: Fantasy violence / **V**: Violence / **S**: Sexual situation / **L**: Adult Language / **D**: Sexually Suggestive Dialog.

To lock/block movies or shows with certain ratings and/or kinds of content, click the square next to the rating and/or under the kind of content. A lock appears. To unlock/unblock, click the square again. When you click a low rating, all the ratings above it will also display locks. You can also Allow All or Lock All. When done, press the RETURN button on your remote.

- **Change PIN**: The Change PIN screen will appear. Choose any 4 digits for your PIN and enter them in **Enter New PIN** fields. Re-enter the same 4 digits in **Confirm New PIN** fields. When the Change PIN screen disappears, press the OK button. The TV has memorized your new PIN.
  - ✎ If you forget the PIN, press the remote-control buttons in the following sequence, which resets the pin to "0-0-0-0" : POWER (off) → MUTE → 8 → 2 → 4 → POWER (on)

Game Mode

When you connect a game console such as a PlayStation™ or Xbox™ to your TV, you can enjoy a more realistic gaming experience by turning on the **Game Mode** function.

✎ Precautions and limitations for game mode:

- Before you disconnect the game console and connect another external device, set **Game Mode** to **Off** in the setup menu.
- If you display the TV menu in **Game Mode**, the screen shakes slightly.

✎ **Game Mode** is not available when the input source is set to **TV**.

✎ After connecting the game console, set **Game Mode** to **On**. You may notice slightly reduced picture quality.

Caption

(On-Screen Text Dialogue)

- **Caption**: You can switch the caption function on or off. If captions are not available, they will not be displayed on the screen.
  - ✎ The **Caption** feature does not work in **Component** or **HDMI** mode.
- **Caption Mode**: You can select the desired caption mode.

  Default / CC1~CC4 / Text1~Text4: (analog channels only) The Analog Caption function operates in either analog TV channel mode or when a signal is supplied from an external device to the TV. (Depending on the broadcasting signal, the Analog Caption function may or may not work with digital channels.)

  Default / Service1~Service6 / CC1~CC4 / Text1~Text4: (Digital channels only) The Digital Captions function works with digital channels.

  ✎ **Service1~6** may not be available in digital caption mode depending on the broadcast.
- **Digital Caption Options**: (Digital channels only)

  Size: Options include Default, Small, Standard and Large. The default is Standard.

  Font Style: Options include Default and Styles 0 to 7. The default is Style 0.

  Foreground Color: Options include Default, White, Black, Red, Green, Blue, Yellow, Magenta and Cyan. You can change the color of the letters. The default is White.

  Background Color: Options include Default, White, Black, Red, Green, Blue, Yellow, Magenta and Cyan. You can change the background color of the captions. The default is Black.

  Foreground Opacity: This adjusts the opacity of text. Options include Default, Transparent, Translucent, Solid and Flashing.

  Background Opacity: This adjusts the opacity of the caption background. Options include Default, Transparent, Translucent, Solid and Flashing.

  Return to Default: This option sets each Size, Font Style, Foreground Color, Background Color, Foreground Opacity and Background Opacity to its default.

  ✎ **Digital Caption Options** are available only when you can select **Default** and **Service1 ~ Service6** in **Caption Mode**.

  ✎ The Foreground and Background cannot be set to the same color.

Melody

Set so that a melody plays when the TV is turned on or off.

✎ The **Melody** does not play:

- When no sound is output from the TV because the MUTE button has been pressed.
- When no sound is output from the TV because the volume has been reduced to minimum with the VOL – button.
- When the TV is turned off by **Sleep Timer** function.

Auto Protection Time

- **Auto Protection Time (Off / 2 hours / 4 hours / 8 hours / 10 hours)**: If the screen remains idle with a still image for a certain period of time you define, the screen saver is activated to prevent the formation of ghost images on the screen.

Eco Solution

- **Energy Saving (Off / Low / Medium / High / Picture Off)** : This adjust the brightness of the TV in order to reduce power consumption. If you select **Picture Off**, the screen is turned off, but the sound remains on. Press any button except volume button to turn on the screen.

- **No Signal Power Off (Off / 15 min. / 30 min. / 60 min.)**: Sets how quickly the TV switches to standby mode, if no picture is being received.
  - ✎ Disabled when the PC is in power saving mode.
- **Auto Power Off (Off / On)**: The TV will be automatically turned off when no user operation is received for 4 hours.

Support Menu

Self Diagnosis

- **Picture Test**: Use to check for picture problems. If the problem appears in the test picture, select Yes and follow the directions on the screen.
- **Sound Test**: Use the built-in melody sound to check for sound problems. If the problem occurs during the test, select Yes and follow the directions on the screen.
- **Signal Strength**: (Digital channels only) An HD channel's reception quality is either perfect or the channels are unavailable. Adjust your antenna to increase signal strength.
- **Reset**: Reset all settings to the factory defaults.
  - ✎ The PIN input screen appears before the setup screen.
  - ✎ Enter your 4-digit PIN. Change the PIN using the **Change PIN** option.

Software Upgrade

Software Upgrade can be performed by downloading the latest firmware from samsung.com to a USB memory device.

HD Connection Guide

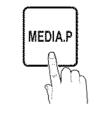
Refer to this information when connecting external devices to the TV.

Contact Samsung

View this information when your TV does not work properly or when you want to upgrade the software. You can find information regarding our call centers and how to download products and software.

Media Play

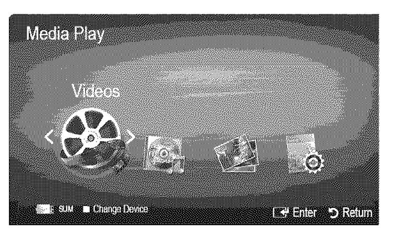
Enjoy photos, music and/or movie files saved on a USB Mass Storage Class (MSC) device.



❑ Connecting a USB Device

1. Turn on your TV.
2. Connect a USB device containing photo, music, and/or movie files to the USB jack on the back of the TV. A pop up window appears.
3. Press the MEDIA.P button on your remote. The **Media Play** menu appears.

❑ Using the Media Play Menu



To open **Media Play** in the Menu, follow these steps:

1. Press the MENU button. Then, press the ▲ or ▼ button to select **Application** on the left, and then press the ENTER⏎ button.
2. Press the ▲ or ▼ button to select **Media Play (USB)**, and then press the ENTER⏎ button.
3. Press the ◄ or ► button to select an icon (**Videos, Music, Photos, Settings**), and then press the ENTER⏎ button.

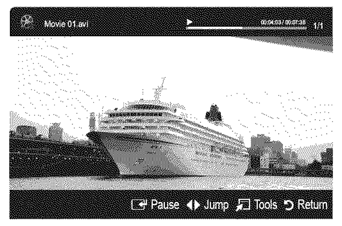
✎ **Media Play** might not work properly with unlicensed multimedia files.

✎ Need-to-Know List before using **Media Play (USB)**

- The file system supports FAT16, FAT32 and NTFS.
- Certain types of USB Digital camera and audio devices may not be compatible with this TV.
- **Media Play** only supports USB Mass Storage Class (MSC) devices. MSC is a Mass Storage Class Bulk-Only Transport device. Examples of MSC are Flash Card Readers. Devices should be connected directly to the TV's USB port. USB HDD is not supported.
- Before connecting your device to the TV, please back up your files to prevent them from damage or loss of data. SAMSUNG is not responsible for any data file damage or data loss.
- A USB device that requires high power (more than 0.5A) may not be supported.
- Do not disconnect the USB device while it is loading.
- The higher the resolution of the image, the longer it takes to display on the screen.
- The maximum supported JPEG resolution is 15,360 x 8,704 pixels.
- If a file is corrupted or the TV does not support the file type, the "Not Supported File Format" message appears.
- The TV cannot play MP3 files with DRM that have been downloaded from a for-pay site. Digital Rights Management (DRM) is a technology that supports the creation, distribution, and management of digital content in an integrated and comprehensive way, including protecting the rights and interests of content providers, preventing illegal copying of contents, and managing billing and settlements.
- PTP devices are not supported.
- If the device is over-powered while connecting or using a USB device, the device may not be recognized or may malfunction.
- If the TV has no input during the time period set in **Auto Protection Time**, the Screensaver will run.
- The power-saving mode of some external hard disk drives may be released automatically when your connect them to the TV.
- If you use a USB extension cable, the TV may not recognize the USB device or may not be able to read the files on the device.
- If a USB device connected to the TV is not recognized, the list of files on the device is corrupted, or a file in the list is not played, connect the USB device to a PC, format the device, and check the connection.
- If a file you deleted from the PC is still found when you run **Media Play**, use the "Empty the Recycle Bin" function on the PC to permanently delete the file.
- **Photos** only supports the sequential jpeg format.
- The **Videos** option does not support the scene search and thumbnail functions.

- If the number of files and folders saved on a USB storage device is over approximately 4000, the files and folders may not appear and some folders may not open.
- The maximum displayed number of files, including sub folders, in one folder of USB storage device is 2000.
- The media may not be playing smoothly when using the device lower than USB 2.0.

Videos



1. In the **Media Play** menu, press the ◀ or ▶ button to select **Videos**, and then press the ENTER↵ button.
2. Press the ◀/▶/▲/▼ buttons to select a video in the file list.
3. Press the ENTER↵ button or ► (Play) button.
   - The file name is displayed on the top of the screen with the playing time.
   - If video time information is unknown, playing time and the progress bar are not displayed.
   - During video playback, you can search using the ◀ and ▶ buttons.

✎ In this mode, you can play movie clips contained in a game, but you cannot play the game itself.

- Supported Subtitle Formats
  - External

Name	File extension
MPEG-4 timed text	.ttxt
SAMI	.smi
SubRip	.srt
SubViewer	.sub
Micro DVD	.sub or .txt
SubStation Alpha	.ssa
Advanced SubStation Alpha	.ass

  - Internal

Name	Container	Format
Xsub	AVI	Picture Format
SubStation Alpha	MKV	Text Format
Advanced SubStation Alpha	MKV	Text Format
SubRip	MKV	Text Format
MPEG-4 Timed text	MP4	Text Format

- Supported Video Formats

File Extension	Container	Video Codec	Resolution	Frame rate(fps)	Bit rate(Mbps)	Audio Codec
*.mp4	MP4	DivX 3.11/4.x/5.1 /6.0	1920x1080	6~30	30Mbps	MP3 / ADPCM / AAC
		H264	1920x1080	6~30	30Mbps	
		AVC	1920x1080	6~30	30Mbps	
		MJPEG	640x480	6~30	10Mbps	
*.avi *.mkv	AVI, MKV	DivX 3.11/4.x/5.1 /6.0	1920x1080	6~30	30Mbps	MP3 / AC3 / LPCM / ADPCM / DTS Core
		MPEG4 SP / ASP	1920x1080	6~30	30Mbps	
		H264	1920x1080	6~30	30Mbps	
		MJPEG	640x480	6~30	10Mbps	
*.asf *.wmv	ASF	DivX 3.11 / 4.x /5.1 / 6.0	1920x1080	6~30	30Mbps	MP3 / AC3 / LPCM / ADPCM / WMA / WMA Pro
		MPEG4 SP / ASP	1920x1080	6~30	30Mbps	
		H.264	1920x1080	6~30	30Mbps	
*.ts *.trp *.tp *.m2ts	TS	MPEG2	1920x1080	6~30	30Mbps	AC3 / AAC / MP3 / DD+ / HE-AAC
		H. 264 BP / MP / HP	1920x1080	6~30	30Mbps	
*.dat *.mpg *.mpeg *.vob	PS	MPEG1	1920x1080	24/25/30	30Mbps	AC3 / MPEG / LPCM / AAC
		MPEG2	1920x1080	24/25/30	30Mbps	
		H. 264 BP / MP / HP	1920x1080	6~30	30Mbps	
*.3gp	3GPP	MPEG4 SP / ASP	1920x1080	6~30	30Mbps	MP3
		H.264	1920x1080	6~30	30Mbps	
*.flv *.swf	flash formats	H.264	1920x1080	6~30	30Mbps	MP3
		Sorenson H.263	1920x1080	6~30	30Mbps	

Other Restrictions

- Video content will not play, or not play correctly, if there is an error in the content or the container.
- Sound or video may not work if the contents have a standard bit rate/ frame rate above the compatible Frame/sec listed in the Supported Video Formats table.
- If the Index Table erroneous, the Seek (Jump) function is not supported.
- The menu may take longer to appear if the video's bit rate exceeds 10Mbps.
- Video content can not be played if there are many contents in one file.

Video Decoder

Supports up to H.264, Level 4.1

H.264 FMO / ASO / RS, VC1 SP / MP / AP L4 and AVCHD are not supported.

MPEG4 SP, ASP :

– Below 1280 x 720: 60 frame max

– Above 1280 x 720: 30 frame max

H.263 is not supported.

GMC is not support.

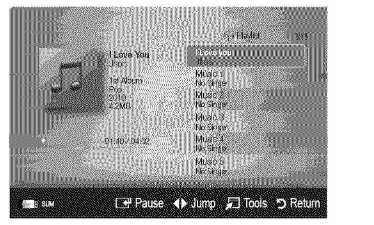
Audio Decoder

Supports up to WMA7, 8, 9 STD, 9 PRO, 10 PRO

WMA 9 PRO and WMA 10 PRO support 5.1 channel. (LBR mode of WMA Pro is not supported)

WMA Lossless is not supported.

Music

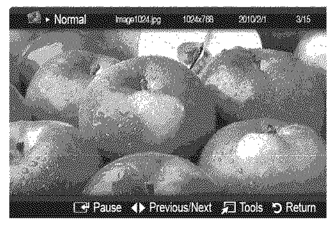


1. In the **Media Play** menu, press the ◀ or ▶ button to select **Music**, and then press the ENTER↵ button.
2. Press the ◀/▶/▲/▼ buttons to select the desired music in the file list.
3. Press the ENTER↵ button or ► (Play) button.
   - ✎ During music playback, you can search using the ◀ and ▶ button.
   - ✎ ◀◀ (REW) and ▶▶ (FF) buttons do not function during play.

✎ Media Play only displays files with MP3 and PCM file extension. Other file extensions are not displayed, even if they are saved on the same USB device.

✎ If the sound is abnormal when playing MP3 files, adjust the **Equalizer** in the **Sound** menu. (An over-modulated MP3 file may cause a sound problem.)

Photos



1. In the **Media Play** menu, press the ◀ or ▶ button to select **Photos**, then press the ENTER↵ button.
2. Press the ◀/▶/▲/▼ buttons to select a photo in the file list.
3. Press the ENTER↵ button or ► (Play) button.

✎ NOTE
- While a photo list is displayed, press the ► (Play) / ENTER↵ button on the remote control to start a slide show.
- All files in the file list section will be displayed in the slide show.
- During the slide show, files are displayed in order.
- During the slide show, you can adjust the slide show speed using (◀◀) (REW) or (▶▶) (FF) button.
- You can move to other files using ◀ or ▶ button.

✎ **Media Play** can play music files automatically during a Slide Show if **Background Music** is set to **On**.

✎ You cannot change the **Mode** in **Background Music** until the Background Music file has finished loading.

- Supported Photo Formats

Image	Photo	Resolution
JPEG	Base-line	15360 x 8704
	Progressive	1024 x 768

Other Restrictions

- CMYK, YCCK Color space JPEG are not supported.

Playing Multiple Files

■ **Playing selected video/music/photo files**

1. On the File List screen, highlight a file, and then press the Yellow button on your remote.
2. Repeat Step 1 to select multiple files.

✎ **NOTE**
- A ✓ mark appears to the left of the selected files.
- To cancel a selection, press the Yellow button again.
- To deselect all selected files, press the TOOLS button, select **Deselect All,** and then the ENTER↵ button.

3. Press the TOOLS button, select **Play Selected Contents,** and then press the ENTER↵ button.

■ **Playing a video/music/photo folder**

1. With the folders on your USB device displayed, use the ◀/▶/▲/▼ buttons to highlight a folder.
2. Press the TOOLS button, select **Play Folder,** and then press the ENTER↵ button.

Media Play - Additional Functions

■ **Videos/Music/Photos Play Option menus**

When playing a file, press the TOOLS button.

Category	Operation	Videos	Music	Photos
Title	You can select another video file to play directly.	✓		
Repeat Mode	You can play movie and music files repeatedly.	✓	✓	
Picture Size	You can adjust the picture size to your preference.	✓		
Picture Mode	You can adjust the picture setting.	✓		✓
Sound Mode	You can adjust the sound setting.	✓	✓	✓
Subtitle Setting	You can play the video with Subtitles. This function only works if the subtitles have the same file name as the video.	✓		
Audio Language	You can change the audio language if the video has more than one language.	✓		
Stop Slide Show / Start Slide Show	You can start or stop a Slide Show.			✓
Slide Show Speed	You can select the slide show speed during the slide show.			✓
Background Music	You can set and select background music when watching a Slide Show.			✓
Zoom	You can zoom into images in full screen mode.			✓
Rotate	You can rotate images in full screen mode.			✓
Information	You can see detailed information about the played file.	✓	✓	✓

Settings

Using the Setup Menu

■ **Information**: Select to view information about the connected USB device.

Other Information

Installing the Wall Mount Kit

The wall mount kit (sold separately) allows you to mount the TV on the wall.

For detailed information about installing the wall mount, see the instructions provided with the wall mount items. Contact a technician for assistance when installing the wall mount bracket. Samsung Electronics is not responsible for any damage to the product or injury to yourself or others if you elect to install the wall mount on your own.

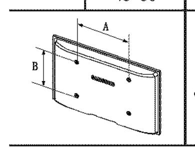
Wall Mount Kit Specifications (VESA)

✎ The wall mount kit is not supplied, but sold separately.

Install your wall mount on a solid wall perpendicular to the floor. When attaching to other building materials, please contact your nearest dealer. If you install the TV on a ceiling or slanted wall, it may fall and result in severe personal injury.

✎ NOTE
- Standard dimensions for wall mount kits are shown in the table below.
- When purchasing our wall mount kit, a detailed installation manual and all parts necessary for assembly are provided.
- Do not use screws that do not comply with the VESA standard screw specifications.
- Do not use screws that are longer than the standard dimension or do not comply with the VESA standard screw specifications. Screws that are too long may cause damage to the inside of the TV set.
- For wall mounts that do not comply with the VESA standard screw specifications, the length of the screws may differ depending on the wall mount specifications.
- Do not fasten the screws too firmly. This may damage the product or cause the product to fall, leading to personal injury. Samsung is not liable for these kinds of accidents.
- Samsung is not liable for product damage or personal injury when a non-VESA or non-specified wall mount is used or the consumer fails to follow the product installation instructions.
- Do not mount the TV at more than a 15 degree tilt.
- Always have two people mount the TV on a wall.

Product Family	TV size in inches	VESA screw hole specs (A * B) in millimeters	Standard Screw	Quantity
LED-TV	19~22	75 X 75	M4	4
	26	100 X 100		
	32~40	200 X 200	M6	
	46~60	400 X 400	M8	



⚠ Do not install your Wall Mount Kit while your TV is turned on. It may result in personal injury due to electric shock.

Securing the TV to the Wall

⚠ **Caution**: Pulling, pushing, or climbing onto the TV may cause the TV to fall. In particular, ensure that your children do not hang over or destabilize the TV; doing so may cause the TV to tip over, resulting in serious injuries or death. Follow all safety precautions provided on the included Safety Flyer. For added stability, install the anti-fall device for safety purposes, as follows.

To prevent the TV from falling

✎ Since the necessary brackets, screws, and string or cable are not supplied, please purchase these separately.

1. Insert the screws into the wall brackets and firmly fasten them to the wall. Make sure the screws are firmly fixed to the wall.
   ✎ We strongly recommend you drive the screws into a stud.
2. Using screws, insert the screws through the TV brackets, and then fasten the screws to the top VESA screw holes on the back of the TV.
3. Connect the brackets on the TV and the brackets on the wall with a strong string or cable, and then tie the string or cable tightly to the brackets.

✎ Verify all connections are properly secured. Periodically check the connections for any sign of fatigue or failure. If you have any doubt about the security of your connections, contact a professional installer.

✎ Install the TV close to the wall so that it does not fall.

✎ Connect the string or cable so that the brackets on the wall are at the same height or lower than the brackets on the TV. Untie the string or cable before moving the TV.

✎ To purchase a TV Holder kit, contact Samsung customer care.

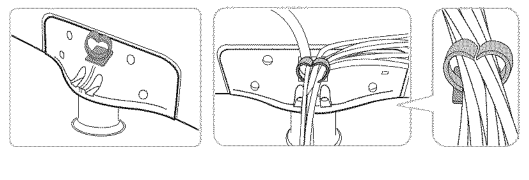
Kensington Lock

The Kensington Lock is not supplied by Samsung. It is a device used to physically fix the system when using it in a public place. Refer to the manual provided with the Kensington Lock for additional information on proper use.

✎ Please find a "🔒" icon on the rear of the TV. The Kensington slot is beside the "🔒" icon.

✎ The position and color may differ depending on the model.

Assembling the Wire Holder stand



Display Modes (HDMI/DVI Input)

Optimal resolution

4003 series:1366 x 768@60Hz / 5003 series: 1920 x 1080@60Hz

Mode	Resolution	Horizontal Frequency (KHz)	Vertical Frequency (Hz)	Pixel Clock Frequency (MHz)	Sync Polarity (H / V)	1366 x 768	1920 x 1080
IBM	640 x 350	31.469	70.086	25.175	+/-	✓	✓
	720 x 400	31.469	70.087	28.322	-/+	✓	✓
MAC	640 x 480	35.000	66.667	30.240	-/-	✓	✓
	832 x 624	49.726	74.551	57.284	-/-	✓	✓
	1152 x 870	68.681	75.062	100.000	-/-		✓
VESA DMT	640 x 480	31.469	59.940	25.175	-/-	✓	✓
	640 x 480	37.861	72.809	31.500	-/-	✓	✓
	640 x 480	37.500	75.000	31.500	-/-	✓	✓
	800 x 600	37.879	60.317	40.000	+/+	✓	✓
	800 x 600	48.077	72.188	50.000	+/+	✓	✓
	800 x 600	46.875	75.000	49.500	+/+	✓	✓
	1024 x 768	48.363	60.004	65.000	-/-	✓	✓
	1024 x 768	56.476	70.069	75.000	-/-	✓	✓
	1024 x 768	60.023	75.029	78.750	+/+	✓	✓
	1152 x 864	67.500	75.000	108.000	+/+		✓
	1280 x 720	45.000	60.000	74.250	+/+	✓	✓
	1280 x 800	49.702	59.810	83.500	-/+		✓
	1280 x 1024	63.981	60.020	108.000	+/+		✓
	1280 x 1024	79.976	75.025	135.000	+/+		✓
	1366 x 768	47.712	59.790	85.500	+/+	✓	✓
	1440 x 900	55.935	59.887	106.500	-/+		✓
	1600 x 900RB	60.000	60.000	108.000	+/+		✓
	1680 x 1050	65.290	59.954	146.250	-/+		✓
	1920 x 1080	67.500	60.000	148.500	+/+		✓

Troubleshooting

If the TV seems to have a problem, first review this list of possible problems and solution. If none of these troubleshooting tips apply, visit samsung.com, then click on Support, or call Samsung customer service at 1-800-SAMSUNG.

Problem	Possible Solution
Flickering and Dimming	If your Samsung Television is flickering or dimming sporadically, you may need to disable some of its energy efficient features like the Eco Sensor or the Energy Saving feature. Follow the steps below with your remote to turn these features off or on. • **Energy saving** : **Menu → Setup → Eco Solution → Energy Saving** → Select Settings
Component Connections / Screen Color	If you find that the color on your Samsung television's screen is not correct or black and white, first run a Self Diagnosis Test on the TV to make sure there are no device issues. • **Self Diagnosis** : **User Menu → Support → Self Diagnosis → Picture Test** • If the test is ok, try making sure ; • Your connections are all consistent. For example, if you've used the AV In jack on your TV, make sure you have used the AV Out jack on your video source. • Try making sure you have connected to the correct jacks. For example, if you use the Component jacks, labeled Pb, Pr, and Y, to connect your TV and video source, make sure you have connected the blue Pb jack on the video source to the blue Pb jack on the TV, the red Pr jack on the source to the red Pr jack on the TV.
Screen Brightness	If you find that the colors on your Samsung TV are correct but just a little too dark or bright, there are some settings you should check before calling for a repair. • Backlight, Contrast, Brightness, Sharpness, Color, Tint and so on. Go to "Picture" in the Menu, and then try adjusting these options.
Unwanted Powering off	If your Samsung TV appears to turn off by itself, there may be an issue with either your Timer settings or your Eco friendly No Signal Power Off feature. First make sure the Sleep Timer is not accidentally set. The Sleep Timer lets you fall asleep with the TV still on knowing that it will turn off after a certain period of time and not waste energy. • **Sleep Timer** : **User Menu → Setup → Time → Sleep Timer** If the Sleep Timer is not activated, you may have engaged the No Signal Power Off or Auto Power Off feature. • **No Signal Power Off** : **User Menu → Setup → Eco Solution → No Signal Power** • **Auto Power Off** : **User Menu → Setup → Eco Solution → Auto Power Off**
Trouble Powering On	Before you turn the TV on, find the red light on the right or left bottom of your TV. Press the power on button on the TV or remote and the light should blink about 5 times before the TV turns on. If you find that you are having trouble powering on your Samsung television, there are a number of things to check it before making a call to the service department. • If you happen to be using the TV as a monitor and the stand-by light only blinks for a few seconds when you press the power button, your PC is in sleep mode. To take your PC out of sleep mode, press a key on your keyboard or move the mouse. Then try turning your TV on. If you're sure your power cord, remote control, and PC are functioning properly, you may be having a cable issue. If you have a cable or satellite box, your TV may appear to be off because the cable or satellite box is not outputting a signal. To test the signal output of your cable or satellite box, press the guide or info button on the cable or satellite box remote control. If the screen displays the guide or info data, the problem is caused by the box.
Stand Assembly	• If you have any trouble assembling the stand, refer to "Install the Stand" in the Start Up or Stand Installation Guide.
Cannot find a channel	• Re-run Plug & Play or run Auto Program. (go to MENU - **Channel - Auto Program**)

Problem	Possible Solution
Poor Picture	First, perform the **Picture Test** and to see if your TV is displaying the test image properly. Go to MENU - **Support - Self Diagnosis - Picture Test** If the test image is properly displayed, the poor picture may be caused by the source or signal.
The TV image does not look as good as it did in the store.	• If you have an analog cable/satellite box, upgrade to a digital set top box. Use HDMI or Component cables to deliver HD (high definition) picture quality. • Cable/Satellite subscribers: Try HD channels from the channel line up. • Air/Cable Antenna connection: Try HD channels after running Auto Program. ✎ Many HD channels broadcast up scaled SD (Standard Definition) content. The picture quality of up scaled SD content is low. • Adjust the Cable/Set top box video output resolution to 1080i or 720p.
The picture is distorted: macroblock error, small block, dots, pixelization.	• Compression of video contents may cause picture distortion, especially on fast moving pictures such as those in sports and action movies. • A weak signal can cause picture distortion. This is not a TV problem. • Mobile phones used close to the TV (within 3.3ft) may cause noise in the picture on analog and digital channels.
Color is wrong or missing.	• If you're using a component connection, make sure the component cables are connected to the correct jacks. Incorrect or loose connections may cause color problems or a blank screen.
There is poor color or brightness.	• Adjust the Picture options in the TV menu. (go to **Picture Mode / Color / Brightness / Sharpness**) • Adjust the **Energy Saving** option in the TV menu. (go to MENU - **Setup** - **Eco Solution** - **Energy Saving**) • Try resetting the picture to the default picture settings. (go to MENU - **Picture** - **Picture Reset**)
There is a dotted line on the edge of the screen.	• If the picture size is set to **Screen Fit**, change it to 16:9. • Change the cable/satellite box resolution.
The picture is black and white.	• If you are using an AV composite input, connect the video cable (yellow) to the Green jack of Component Input 1 on the TV.
When changing channels, the picture freezes or is distorted or delayed.	• If connected to a cable box, please try to reset it. (Reconnect the AC cord and wait until the cable box reboots. It may take up to 20 minutes) • Set the output resolution of the cable box to 1080i or 720p.
Sound Problems	Perform the **Sound Test** to confirm that your TV audio is properly operating. (go to MENU - **Support - Self Diagnosis - Sound Test**) If the audio is OK, the sound problem may be caused by the source or signal.
There is no sound or the sound is too low at maximum volume.	• Check the volume of the device (Cable/Sat Box, DVD, Blu-ray, etc.) connected to your TV.
The picture is good, but there is no sound.	• If you are using an external device, check the device's audio output option Ex. you may need to change your cable box's audio option to HDMI if the box is connected to your TV using an HDMI cable. • Reboot the connected device by reconnecting the device's power cable.
The speakers are making an inappropriate noise.	• Check the cable connections. Make sure a video cable is not connected to an audio input. • For Antenna or Cable connections, check the signal information. A weak signal may cause sound distortion. • Perform the **Sound Test** as explained above.
No Picture, No Video	
The TV will not turn on.	• Make sure the AC power cord is securely plugged into the wall outlet and the TV. • Make sure the wall outlet is working. • Try pressing the POWER button on the TV to make sure the problem is not the remote. If the TV turns on, refer to 'Remote control does not work' below.
The TV turns off automatically.	• Ensure the **Sleep Timer** is set to **Off** in the **Time** menu. • If your PC is connected to the TV, check your PC power settings. • Make sure the AC power cord is plugged securely into the wall outlet and the TV. • When you are watching TV connected to an antenna or cable connection, the TV will turn off after 10 - 15 minutes if there is no signal.
There is no picture/video.	• Check the cable connections. (Remove and reconnect all cables connected to the TV and external devices). • Set your external device's (Cable/Sat Box, DVD, Blu-ray etc) video outputs to match the connections to the TV input. For example, if an external device's output is HDMI, it should be connected to an HDMI input on the TV. • Make sure your connected devices are powered on. • Be sure to select the correct input source by pressing the SOURCE button on the remote control. • Reboot the connected device by reconnecting the device's power cable.
Antenna(Air / Cable) Connection	
The TV is not receiving all channels.	• Make sure the coaxial cable is connected securely. • Run Auto Program to add available channels to the channel list. go to MENU - **Channel - Auto program** then select **Auto** and make sure the correct Cable TV signal type is set in the menu. There are 3 options. (**STD**, **HRC** and **IRC**) • Verify the antenna is positioned correctly.
No Caption on digital channels.	• Check the Caption Setup menu. Try changing **Caption Mode Service 1** to **CC1**. • Some channels may not have caption data.
The picture is distorted: macroblock, error, small block, dots, pixelization.	• Compression of video contents may cause picture distortion, especially on fast moving pictures such as those in sports and action movies. • A weak signal can cause picture distortion. This is not a TV problem.

Problem	Possible Solution
Others	
Purple/green rolling horizontal bars and buzzing noise from the TV speakers with Component cable connection.	• Remove the left and right audio connections from the set-top-box. If the buzzing stops, this indicates that the set-top-box has a grounding issue. Replace the Component video cables with an HDMI connection.
The picture will not display in full screen.	• HD channels will have black bars on either side of the screen when displaying up scaled SD (4:3) contents. • Black bars on the top and bottom appear when movies that have aspect ratios different from your TV play on the TV. • Adjust the picture size option on your external device or change the TV to full screen.
The remote control does not work.	• Replace the remote control's batteries. Make sure you insert them with the polarity (+/–) correct . • Clean the transmission window located on the top of the remote control. • Try pointing the remote directly at the TV from 5~6 feet away.
The cable/set top box remote control does not turn the TV on or off, or adjust the volume.	• Program the Cable/Set top box remote control to operate the TV. Refer to the Cable/Set top box user manual for the SAMSUNG TV code.
A "**Mode Not Supported**" message appears.	• Check the supported resolution of the TV and adjust the external device's output resolution accordingly. Refer to resolution settings in this manual.
Caption on the TV menu is greyed out.	• **You cannot select Caption in the TV menu when watching content from a device connected via HDMI or Component.** • **Caption** must be activated on the external device.
There is a plastic smell from the TV.	• This smell is normal and will dissipate in a few days.
TV **Signal Strength** is unavailable in the **Self Diagnosis** Test menu.	• This function is only available for digital channels received through an Antenna / RF / Coax connection.
TV is tilted to the right or left side.	• Remove the stand base from the TV and reassemble it.
The **Channel** menu is grey out (unavailable).	• **The Channel menu is only available when you select the TV source.**
Your settings are lost after 30 minutes or every time the TV is turned off.	• If TV is in the **Store Demo** mode, it will reset audio and picture settings every 30 minutes. Please change from **Store Demo** mode to **Home Use** mode using the **Plug & Play** procedure. Press the SOURCE button to select **TV** mode, go to MENU → **Setup** → **Plug & Play** → ENTER↵.
You have intermittent loss of audio or video.	• Check the cable connections and reconnect them. • Loss of audio or video can be caused by using overly rigid or thick cables. Make sure the cables are flexible enough for long term use. If mounting the TV to the wall, we recommend using cables with 90 degree connectors.
You see small particles when you look closely at the edge of the frame of the TV.	• This is part of the product's design and is not a defect.
POP (TV's internal banner ad) appears on the screen.	• Select **Home Use** under **Plug & Play** mode. For details, refer to **Plug & Play** (Initial Setup).

✎ This TFT LED panel uses a panel consisting of sub pixels which require sophisticated technology to produce. However, there may be a few bright or dark pixels on the screen. These pixels will have no impact on the performance of the product.

✎ Watch these troubleshooting on video at www.samsung.com/spsn.

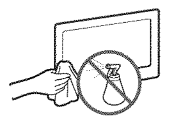
✎ Some functions and pictures shown in this manual are available on specific models only.

✎ You can keep your TV in optimum condition by upgrading it with the latest firmware from the Samsung web site (samsung.com → Support → Downloads). To upgrade, download the firmware to your computer, copy the firmware file to a USB memory stick, insert the USB memory stick into the TV's USB slot, and then select Support > Software Upgrade in the TV's menu.

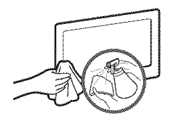
Storage and Maintenance

✎ If a sticker was attached to the TV screen, some debris can remain after you remove the sticker. Please clean it before watching the TV.

✎ The exterior and screen of the product can get scratched during cleaning. Be sure to wipe the exterior and screen carefully using a soft cloth to prevent scratches.



Do not spray water directly onto the product. Any liquid that goes into the product may cause a failure, fire, or electric shock.



Clean the product with a soft cloth dampened with in a small amount of water. Do not use a flammable liquid (e.g. benzene, thinners) or a cleaning agent.

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SRS TheaterSound™ provides the most immersive surround sound experience from the TV's built-in speakers, while maintaining steady volume and delivering rich bass and clear dialog.

DivX Certified® to play DivX® video up to HD 1080p, including premium content.

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■ **This product uses some software programs which are distributed under the Independent JPEG Group.**

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Specifications

Environmental Considerations Operating Temperature Operating Humidity Storage Temperature Storage Humidity	50°F to 104°F (10°C to 40°C) 10% to 80%, non-condensing -4°F to 113°F (-20°C to 45°C) 5% to 95%, non-condensing		
Model Name	UN22ES4003	UN32EH4003	UN39EH5003
Display Resolution	1366 x 768		1920 x 1080
Screen Size (Diagonal)	22" Class (21.5" measured diagonally)	32" Class (31.5" measured diagonally)	39" Class (38.5" measured diagonally)
Sound Output	3W x 2	5W x 2	10W x 2
Dimensions (W x H x D) Body With stand	20.4 X 12.5 X 1.9 inches (518.9 X 319.7 X 49.0 (mm)) 20.4 X 13.9 X 4.8 inches (518.9 X 354.1 X 123.4 (mm))	29.0 X 17.4 X 3.6 inches (738.4 X 444.0 X 93.2 (mm)) 29.0 X 19.5 X 7.5 inches (738.4 X 497.7 X 191.7 (mm))	35.2 X 20.9 X 3.6 inches (895.9 X 532.5 X 93.2 (mm)) 35.2 X 23.2 X 8.9 inches (895.9 X 589.3 X 227.6 (mm))
Weight Without Stand With Stand	7.0 lbs (3.2 kg) 7.2 lbs (3.3 kg)	11.9 lbs (5.4 kg) 13.2 lbs (6.0 kg)	17.1 lbs (7.8 kg) 21.6 lbs (9.8 kg)

✎ Design and specifications are subject to change without prior notice.

✎ This device is a Class B digital apparatus.

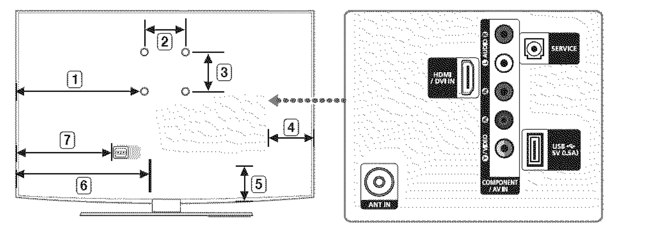
✎ For information about the power required and more about power consumption, refer to the label attached to the product.

✎ Typical power consumption is measured according to Energy Star Program requirements for televisions.

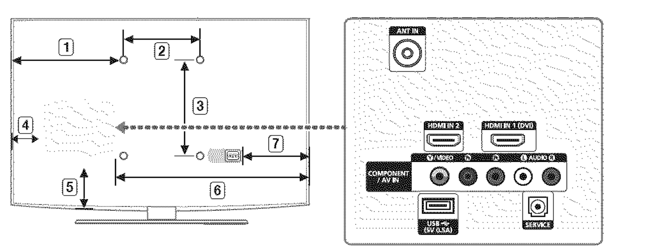
✎ Dispose unwanted electronics through an approved recycler. To find the nearest recycling location, go to our website: www.samsung.com/recyclingdirect or call, (877) 278-0799.

■ **JACK PANEL DETAIL / REAR VIEW**

UN22ES4003



UN32EH4003 / UN39EH5003



UN22ES4003 (Unit: inches)

1	8.7
2	2.9
3	2.9
4	4.3
5	2.2
6	9.1
7	6.4

UN32EH4003 (Unit: inches)

1	10.5
2	7.8
3	7.8
4	3.4
5	3.9
6	19.0
7	7.7

UN39EH5003 (Unit: inches)

1	13.6
2	7.8
3	7.8
4	5.2
5	5.6
6	23.5
7	10.7

NOTE: All drawings are not necessarily to scale. Some dimensions are subject to change without prior notice. Refer to the dimensions prior to performing installation of your TV. Not responsible for typographical or printed errors.

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